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Expectations of department lecturers and/or professors from prep school education and prepatory English language lessons

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Abstract

This study has focused on the opinions of content area lecturers and/or professors regarding the academic English requirements of English-medium departments (e.g., Mechanical Engineering, Physics, Chemistry, etc.) at Izmir Institute of Technology (IYTE) and Kocaeli University (KOU). The data were collected from 50 content teachers of 12 different departments at IYTE and 35 content teachers of 10 departments at KOU with the help of a questionnaire. The main aim of this study was to gain insights about the required skills in the students' shift from prep classes to their respective departments in the universities where the medium of instruction is English or partially English. Within the light of data gathered from the course lecturers in the departments and/or programs of the school, necessary comparisons and contrasts have been made and the results of these comparisons might facilitate the redevelopment of the curriculum in the Department of Foreign Languages at IYTE and School of Foreign Languages KOU.

Keywords: Needs analysis, preparatory school education, EFL;

1. Introduction

Needs analysis is a crucial process while dealing with designing new curricula and renewing already existing ones (Long, 2005). It includes many different procedures used to obtain information about the learners and about the necessary tasks to be able to use in syllabus design (Nunan, 1993). It might be defined as "the sets of tools, techniques, and procedures for determining the language content and learning process for specified groups of learners" (Nunan, 1999; p. 149). Identifying the components of the educational system will make the problems and solutions associated with them more visible and it will help in the solution of prominent problems.

Canbay (2006) asserts that needs analysis is an important part of curriculum design which includes gathering information about students' needs and preferences, and which uses the data gathered as a starting point for redesigning the course. In this re-designation of the course, setting course objectives includes three important parts: (a) students needs, (b) subject-matter requirements, and (c) occupational utility (Buckley, 1969).

According to Popham (1972), the concept of needs analysis is parallel to the idea of identifying educational goals. The following diagram indicates the process of identifying the educational goals:

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DESIRED LEARNER OUTCOME - CURRENT LEARNER STATUS= AN EDUCATIONAL NEED
(Popham, 1972, p. 23)

Figure 1: The Process of Identifying Educational Goals

With the occurrence of communicative approaches to language teaching, the idea that the content of language courses should project the aims of the students has emerged. Nunan (1999) points out that "rather than fitting students to courses, courses should be designed to fit students" (p. 148).

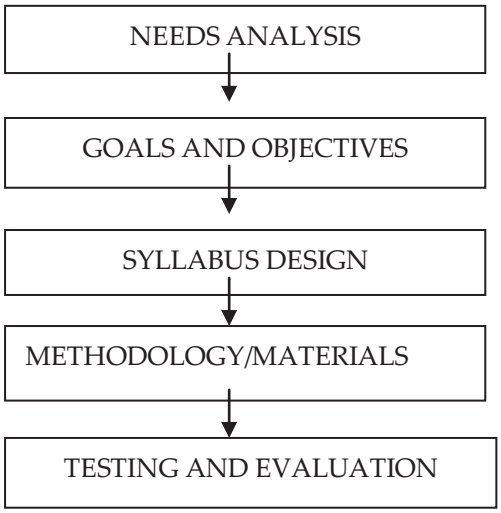

Figure 2: Mashura's Model of Course Design Procedures (as cited in Canbay, 2006, p.24)

2. Classifying learner needs

In the practical work carried out by Brindley (1984) it is possible to see two different distinctions. First of all, he distinguishes learner needs into "subjective" and "objective" needs. In this classification *objective needs* refer to the ones which can be identified by teachers with the help of the analysis of personal data about learners in addition to the data on their language proficiency and their language use. On the other hand, *subjective needs* which include the learners' wants, desires, expectations etc. are difficult to recognize even if they are stated the learners themselves. Secondly, he makes another distinction between "initial" and "on-going" needs. *Initial needs analysis* is the one which is conducted prior to the beginning of a course whereas *on-going needs analysis* is carried out informally by course teachers after a course begins.

In another context Nunan (1999) makes a classification of students' needs as "content" and "process" needs. *Content needs* refers to selecting and ordering topics grammar, function, notions and vocabulary while *process needs* includes selecting and ordering of learning tasks and experiences.

3. Techniques and procedures in identifying learner needs

In order to carry out needs analysis, there are two common techniques used by needs analysts. One of them is used for initial content analysis. The key question is "what are the skills and linguistic knowledge needed by students to comprehend and produce language for successful communication in target language situations?" The second technique used aims to get information about and from the learners themselves.

In this study, "initial content analysis" by means of the opinions of the students' content area instructors has been carried out because it is thought that when the content area instructors' opinions are taken into account and necessary modifications in the curriculum of the prep classes are made in accordance with their opinions, it can contribute to the success of the students when they go on their studies in their own departments.

4. Methodology

The aim of this study is to identify the academic English requirements of English-medium departments from the content area teachers' opinions at İzmir Institute of Technology (IYTE). The data were collected from 50 faculty members of IYTE who represented 12 different departments, and 35 content teachers of 10 departments at KOU with the help of a questionnaire.

This descriptive study aims to find out the participant teachers' opinions about the necessary skills in the shift from prep class to their own departments where the medium of instruction is English.

The universe of the study is all the content teachers at İzmir Institute of Technology and KOU and the sample includes 85 faculty members from both universities. The distribution of participant instructors and/or professors in the sample based on their departments and/or programs is shown in Table 1.

Table 1.Distribution of participant teachers in the sample according to their departments/programs

Department (IYTE)	N	Department (KOU)	N
Mechanical Engineering	3	Mechanical Engineering	3
Chemical Engineering	5	Chemical Engineering	3
Molecular Biology and Genetics	3	Mechatronics Engineering	3
Physics	9	Civil Engineering	3
Chemistry	6	Chemistry	6
City and Region Planning	4	Mathematics	4
Electrics-Electronics and Communication Engineering	9	Physics	3
Civil Engineering	3	Business Administration	3
Mathematics	4	Economics	4
Food Engineering	4	International Relations	3
TOTAL	50	TOTAL	35

Of the 50 faculty members at IYTE, 15 of them were female (30 %) and 35 of them were male (70%). These 50 faculty members held different professional titles in their respective departments. Four of them were professors (8%), six were associate professors (12%) and nineteen of them were assistant professors (38%). There were also 20 research assistants (40%) and an instructor (2%). Our participants varied in their duration of teaching experiences as well. 27 of them (54%) had teaching experience of 1-5 years, 17 of them were teaching between 6-10 years (34%), and 6 of them (12 %) had taught more than 10 years at the time of the study.

At Kocaeli University, 35 faculty members filled out the questionnaire. 22 of them were male and 13 of them were female. Five of these instructors were professors, eight of them were associate professors and ten were assistant professors. We also had ten research assistants and three lecturers. Similar to IYTE, the duration of educational experiences at KOU varied as well. Eight of our participants had experience of 1-5 years, fourteen of them had taught between 6-10 years, and thirteen of them had more than 10 years of teaching experience.

4.1. Data collection

During the data collection process, a questionnaire developed by Canbay (2006) was used. Its reliability coefficient Cronbach Alpha was calculated as 0.860. Six questions related to the importance of different language skills and their subskills were asked to the instructors from different departments.

4.2. Analysis of the data

The obtained data at the end of the experiment were analyzed by using SPSS 13.0 Statistics Program. In the analysis of the data, Frequency, Mean, Percentage and Standard Deviation have been used to describe and express the data.

5. Findings and interpretations

In order to determine the most required skill for all the departments taking part in the study, the first part of the questionnaire was analyzed and interpreted. In this part of the questionnaire, the participants were asked to determine the order of importance for the five skills mentioned. The findings about the mot required skills as perceived by the faculty members in each university are illustrated in Table 2.

Table 2. The most required skill for all departments

Skills	IYTE $\overline{X}$	KOU $\overline{X}$
Reading	4,84	4,88
Listening	4,50	4,56
Writing	4,34	4,08
Speaking	3,94	3,60
Translation	3,60	3,48

As can be understood from Table 2, the most required skill for all departments at IYTE and KOU was reading and the least required, according to the perceptions of the lecturers and/or professors, was Translation. Interestingly, even though the averages varied in different universities, the order regarding the significance of difference skills remained exactly same. Reading was the most required skill according to the faculty members of both universities and this might be due to the fact that the students attending both universities had to read and understand academic articles written in English. The average of speaking was low which might have stemmed from the expectations from students about being good at receptive skills rather than productive skills in their content courses. Listening had the second highest average in both universities among all the skills included. This might be due to the significance of listening skills within the classroom because all the content courses were given either by native speakers or non-native speakers of English, and the students needed to have the ability to understand the spoken English as well as the written one. Writing had the third highest average and the possible reason behind this might be that the students were required to write a lot of lab reports, research papers, etc. during their education in their departments. Translation had the lowest average among the other skills because the medium of instruction at these universities is English or partially English, and the students needed to understand spoken and written materials in English. During this process of understanding, translation might not have regarded as an essential skill.

After analyzing the most required skill for all departments, the departmental choices were analyzed to have a more specific outlook. The findings regarding the importance of various skills in different departments at IYTE and KOU are provided in Tables 3 and 4, respectively.

Table 3.The responses given about the importance of various skills in different departments at IYTE

Department	N	Reading	Speaking	Writing	Listening	Translation
Mechanical Engineering	3	4,67	3,33	4,00	4,33	3,33
Chemical Engineering	5	5,00	4,40	4,40	4,80	3,40
Molecular Biology and Genetics	3	5,00	4,67	5,00	4,67	4,67
Physics	9	5,00	4,00	4,44	4,56	3,11
Chemistry	6	4,83	3,83	4,50	4,67	3,83
City and Region Planning	4	4,75	4,75	4,75	4,50	3,75
Electrics-Electronics and	9	4,78	3,44	3,89	4,33	3,67

Communication Engineering						
Civil Engineering	3	4,33	3,33	4,00	3,33	4,00
Mathematics	4	4,75	3,75	4,25	4,50	3,50
Food Engineering	4	5,00	4,25	4,50	5.00	3,50
TOTAL	50	4,84	3,94	4,34	4,50	3,94

Table 4. The responses given about the importance of various skills in different departments at KOU

Department	N	Reading	Speaking	Writing	Listening	Translation
Mechanical Engineering	3	4,78	3,40	4,00	4,44	3,40
Chemical Engineering	3	4,92	3,80	4,22	4,22	3,40
Mechatronics Engineering	3	4,82	3,76	4,02	4,68	3,60
Civil Engineering	3	4,90	4,00	4,06	4,56	3,36
Chemistry	6	4,96	3,20	4,50	4,58	3,32
Mathematics	4	4,90	3,80	4,18	4,50	3,64
Physics	3	4,78	3,44	3,68	4,58	3,44
Business Administration	3	4,88	3,30	3,88	4,46	3,56
Economics	4	4,94	3,10	4,22	4,70	3,50
International Relations	3	4,92	4,20	4,06	4.88	3,50
TOTAL	50	4,88	3,60	4,08	4,56	3,48

According to the information given in Table 3, in 4 departments out of 10at IYTE, reading was regarded as the skill having the highest importance. These departments were Chemical Engineering, Molecular Biology and Genetics, Physics and Food Engineering. It was also observed that in five departments speaking was seen as an important skill because in those departments, its average was more than its general average among the departments. Writing was seen as the third most important ability among the other language skills. In 6 out of 10 departments, its average was more than the general average of the skill. Listening had the second highest average among all the skills included in the study. It shared the top spot with speaking in Food Engineering department. One could also see that the average of translation as a skill was the lowest average when compared to the other skills.

In Table 4, the departmental variations of different skills have been provided. Reading was regarded as the most important skill in all departments at KOU. Writing shared the second place with Listening in Chemical Engineering Department, and in all other departments the second place was taken by Listening alone. Therefore, we can argue that Reading and Listening, both receptive skills, were regarded as the most important skills at KOU. Writing had the third place and Speaking and Translation followed this skill in the order of importance.

Table 5.The responses given for the importance of activities and tasks related to reading

Tasks and activities related to reading	IYTE $\overline{X}$	KOU $\overline{X}$
Reading lecture handouts	4,50	4,44
Reading course books	4,60	4,72
Reading on the internet (e-mails, web sites, etc.)	4,02	3,98
Reading articles in the journals, periodicals, magazines and newspapers	3,96	3,38
Reading instruction booklets / user manuals	3,90	3,86
Reading reports	4,20	4,10
Interpreting graphs, charts and tables	4,08	3,82
Reading reference books e.g. dictionaries, encyclopaedias	4,12	3,78
Reading for specific information	4,12	3,46
Reading for general information	3,80	3,88
Reading for main idea	4,10	4,24
Reading in order to draw conclusions	4,30	4,12
Understanding logical relations within the text while reading	4,30	4,14
Understanding the writer's attitude / point of view while reading	4,00	4,08
Scanning for unknown words in general while reading	3,38	3,48

Recognizing terminology while reading	4,20	4,12
Making inferences while reading	4,32	4,18

When we have a look at the reading activities and tasks mentioned in the questionnaire (Table 4), the items having the highest mean in the list were "reading course books", "reading lecture hand-outs" and "making inferences while reading" at IYTE and "reading course books", "reading lecture hand-outs" and "reading for main idea" at KOU. The item having the lowest mean in the list was "scanning for unknown words in general while reading" at IYTE and "reading articles in the journals, periodicals, magazines and newspapers" at KOU.

Table 6. The responses given for the importance of activities and tasks related to speaking

Tasks and activities related to speaking	IYTE $\overline{X}$	KOU $\overline{X}$
Participating in classroom discussions	3,84	3,62
Asking and answering questions in the class	4,08	4,22
Making presentations /presenting oral reports	4,10	4,38
Speaking in the seminars	4,18	4,06
Speaking in informal daily life situations	4,04	3,66
Speaking to foreigners about their subject	3,86	3,46
Using general (non-academic) vocabulary	3,28	3,12
Using academic vocabulary related to their field	4,14	4,08
Grammatical accuracy while speaking	3,42	3,66
Pronunciation, accent and stress in speaking	3,06	3,14
Fluency and accuracy in speaking	3,62	3,22
Intelligibility/ comprehensibility while speaking	4,00	3,88
Conveying the message while speaking	4,30	4,12

According to Table 5, the speaking task having the highest mean among the others was "conveying the message while speaking" whereas the ability having the lowest mean was "pronunciation, accent and stress in speaking" at IYTE. At KOU "asking and answering questions in the class" had the highest mean, and "pronunciation, accent and stress in speaking" had the lowest mean scores. For the content course teachers, it might be important for students to be able to understand all kinds of written and spoken messages and ask and answer questions in the class; however, they think that the students' pronunciation, accent and stress was not an important ability for them.

Table 7. The responses given for the importance of activities and tasks related to listening

Tasks and activities related to listening	IYTE $\overline{X}$	KOU $\overline{X}$
Understanding the words and terminology used in the lessons	4,62	4,44
Understanding instructions given in English in the lectures	4,38	4,52
Understanding daily life conversations	3,42	3,66
Understanding seminars and presentations in English	4,46	4,28
Understanding videos and TV programmes in English	3,58	3,68
Understanding foreigners studying in the same discipline	4,16	3,24

Table 6 illustrated that the most important listening ability for students were "understanding the words and terminology used in the lessons" at IYTE and "understanding instructions given in English in the lectures" at KOU. On the other hand, the least important activities or tasks were "understanding daily life conversations" at IYTE and "understanding foreigners studying in the same discipline" at KOU. In order to follow their content courses, the students needed to understand all kinds of words and terminology used either by their teacher or in their course materials. However, for their success in their courses, understanding daily life conversations and understanding foreigners studying in the same discipline were the least important owing to the fact that the language used in the lessons is different from daily English and the students only found the limited chance of being in contact with foreigners.

Table 8. The responses given for the importance of activities and tasks related to writing

Tasks and activities related to writing	IYTE $\overline{X}$	KOU $\overline{X}$
Writing short paragraphs	4,00	4,22
Answering short-answer type questions in the exam	3,80	3,70
Preparing presentations	4,36	4,12
Writing research papers	4,28	4,04
Taking notes in the class	3,92	3,88
Writing summaries/ abstracts	4,08	3,94
Writing projects	4,26	4,12
Writing descriptions of experiments	3,96	3,88
Writing critiques of an article	3,92	3,86
Writing lab reports	4,00	4,12
Writing business letters, personal letters and CVs	3,78	3,86
Good expression of the main idea in writing	4,22	4,08
Grammatical accuracy in writing	3,82	3,78
Relevance of ideas to the context of writing	4,12	3,86
Appropriate connections between ideas in writing	3,96	3,88
Sequence of ideas in writing	4,10	4,02
Adequate development of ideas in writing	4,02	4,12
Originality of thoughts in writing	3,82	3,38
Appropriate use of non-academic vocabulary in writing	4,04	4,12
Use of academic vocabulary in writing	4,30	4,14
Mechanics (spelling, punctuation, format, etc)	3,66	3,44

According to Table 7, the most important writing skill for content teachers were the ability “to prepare presentations” at IYTE and the ability of writing short paragraphs at KOU. Whereas, the least important abilities were being talented about “the mechanics such as spelling, punctuation and the format” of their writing at IYTE and “originality of thoughts in writing” at KOU. The possible reason behind perceptions would be the fact that in the majority of courses, students were expected to prepare presentations in their courses and write short paragraphs during their exams. Both of these forms of writing focused on conveying meaning and meaning might have been given more importance compared to format of their writing, and their spelling and pronunciation or the originality of their thoughts were not considered as important as the other skills mentioned.

6. Conclusion

Consequently, it would be possible to claim that receptive skills were considered more important than the productive skills according to the opinion of the content teachers in both universities. Reading and Listening were the skills which had the highest mean scores in all the departments of IYTE and KOU. The possible reason behind would be the fact that the students were expected to understand all kinds of written material related to their field and also to follow their courses given in English. Moreover, the least important skills were translation and speaking according to their content course teachers. It might have stemmed from the fact that they were seldom required to translate a text in their content courses.

When the tasks and activities related to these five skills namely, reading, writing, speaking, listening and translation were taken into account, the most important tasks and abilities were reading lecture course books and lecture handouts, conveying the message while speaking, understanding the words and terminology used in the lesson and preparing presentations.

İzmir Institute of Technology is a school where the medium of instruction is English; that’s why the Department of Foreign Languages has an important role in preparing students for their content courses that will be given in English. With the data gathered from content teachers in this study, in the prep school the syllabi of the courses in the prep class and the “Development of Reading and Writing Skills” courses of freshman students were evaluated again and some changes were made. Since reading was identified to be the most important skill, the materials of reading lessons of both prep class students and first-year students were renewed and extra booklets focusing on different reading strategies were prepared by the instructors in the Department of Foreign Languages. Because the content teachers believed that listening is another important skill, the course book for speaking has been changed and the amount of listening activities in the speaking lessons was augmented.

The time spared for student presentations has been increased in the speaking lessons of prep school. In the faculty courses, also, students are now expected to make presentations about a topic related to their field since the content teachers indicated that preparing presentations is a necessary skill for them.

Another change made is the requirement for students to prepare group debates about a topic related to their field. It is believed that they will not only learn some terminology associated with their major but also improve their speaking and argumentative skills in English.

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